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Product : NTC THERMISTOR PROBE

Redfish Part No. : RBN-2014

Specifications : R₂₅ 10,000 Ω ± 1 %

B₂₅₋₅₀ 3950 °K ± 1 %

I、APPLICATION

Temperature compensation, measurement and control for Heating systems, Industrial electronics and Automotive electronics etc..

II、ELECTRICAL AND COMPLIANCE FEATURES

- i. R25°C: $10 \pm 1\% k\Omega$
- ii. B25°C/50°C: $3950 \pm 1\% K$
- iii. Time constant: 1.5 Sec(max in stirred water)
- iv. Dissipation factor: 2.1mw/°C(min)
- v. Maximum power rating: 5mW(at 25°C)
- vi. RoHS Compliance

III、RELIABILITY CHARACTERISTICS TEST

- i. Temp. Cycle (in air)
 - 30°C×5min $\xrightarrow{25^\circ C}$ +100°C×5min 500cycles
 - $\Delta R/R \leq 2\%$
- ii. High temp. test
 - Placed for 1000 hours, at 100°C (in air)
 - $\Delta R/R \leq 2\%$
- iii. Low temp. test
 - placed for 1000 hours, at -30°C (in air)
 - $\Delta R/R \leq 2\%$
- iv. High temp. humidity test
 - 40°C 95% R.H., placed for 1000 hours.
 - $\Delta R/R \leq 2\%$
- V. Transfer test
 - 1.0mA×40 days.
 - $\Delta R/R \leq 2\%$

Vi. Long-term stability (empirical value)

placed for 10000 hours, at 70°C (in air)

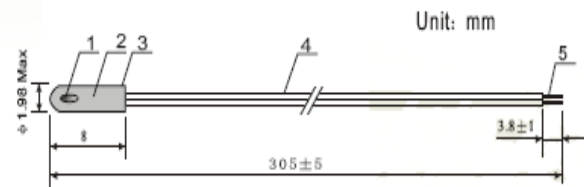
$$\Delta R/R \leq 2\%$$

IV、APPLICATION NOTES

- i. Temperature range for long time continuous work: -30°C ~80°C.
- ii. Avoid measurement error caused by excessive current.
- iii. Control the air temperature blowed the thermistor head to Max. 250°C when adding a heat shrink protecting tube. And the outlet of hot air blower should be of some distance to the thermistor lest excessively heated. Over heat shock will cause resistance value drift.

V、Resistance-Temperature Table: (see accessory)

VI、SIZE DRAWING: unit:mm



NO:	Name & Material	Qty.	Remarks
1	Chip thermistor	1	
2	Epoxy resin	1	White
3	White vinyl cap	1	White
4	30 AWG with PVC insulation	1	Medical grade
5	Strip 3mm		Tinned

R-T TABLE

R(25°C)		10.00 kohm		B(25/50)		3950 K	
Temp. (°C)	Rt(kΩ)	Temp. (°C)	Rt(kΩ)	Temp. (°C)	Rt(kΩ)	Temp. (°C)	Rt(kΩ)
-40	370.6	1	31.78	42	4.884	83	1.155
-39	346.1	2	30.18	43	4.694	84	1.120
-38	323.4	3	28.67	44	4.512	85	1.086
-37	302.3	4	27.24	45	4.338	86	1.054
-36	282.7	5	25.90	46	4.173	87	1.022
-35	264.5	6	24.62	47	4.014	88	0.9924
-34	247.6	7	23.42	48	3.862	89	0.9633
-33	231.9	8	22.28	49	3.717	90	0.9353
-32	217.3	9	21.20	50	3.579	91	0.9082
-31	203.7	10	20.18	51	3.446	92	0.8821
-30	191.0	11	19.22	52	3.319	93	0.8568
-29	179.2	12	18.30	53	3.197	94	0.8325
-28	168.2	13	17.44	54	3.081	95	0.8089
-27	158.0	14	16.62	55	2.970	96	0.7862
-26	148.4	15	15.85	56	2.863	97	0.7642
-25	139.5	16	15.11	57	2.761	98	0.7429
-24	131.2	17	14.42	58	2.663	99	0.7224
-23	123.4	18	13.76	59	2.569	100	0.7025
-22	116.1	19	13.13	60	2.479	101	0.6832
-21	109.3	20	12.54	61	2.392	102	0.6644
-20	102.9	21	11.98	62	2.309	103	0.6463
-19	96.98	22	11.45	63	2.230	104	0.6288
-18	91.40	23	10.94	64	2.153	105	0.6118
-17	86.18	24	10.46	65	2.080	106	0.5954
-16	81.28	25	10.00	66	2.010	107	0.5795
-15	76.70	26	9.566	67	1.942	108	0.5641
-14	72.39	27	9.153	68	1.877	109	0.5492
-13	68.36	28	8.760	69	1.815	110	0.5348
-12	64.57	29	8.387	70	1.755	111	0.5208
-11	61.02	30	8.032	71	1.697	112	0.5073
-10	57.68	31	7.694	72	1.642	113	0.4941
-9	54.53	32	7.373	73	1.588	114	0.4814
-8	51.57	33	7.067	74	1.537	115	0.4691
-7	48.79	34	6.775	75	1.488	116	0.4571
-6	46.18	35	6.498	76	1.441	117	0.4455
-5	43.73	36	6.233	77	1.395	118	0.4342
-4	41.42	37	5.981	78	1.351	119	0.4233
-3	39.25	38	5.740	79	1.309	120	0.4128
-2	37.21	39	5.511	80	1.268		
-1	35.29	40	5.292	81	1.229		
0	33.47	41	5.083	82	1.191		